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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER
EINSMANN, JULIET CAROLINE

ART UNIT	PAPER NUMBER
1634	11

DATE MAILED: 09/25/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

CTFN

Office Action Summary	Application No.	Applicant(s)	
	09/813,919	MOCKEL ET AL.	
	Examiner	Art Unit	
	Juliet C Einsmann	1634	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *12 July 2002* .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-21* is/are pending in the application.

4a) Of the above claim(s) *8-14,16 and 17* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-7,15 and 18-21* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *22 March 2001* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) *7* .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

Election/Restrictions

1. Applicant's election with traverse of Group I in Paper No. 10 is acknowledged. The traversal is on the ground(s) that the examiner will not be unduly burdened searching the art relevant to all of the pending claims as each group of claims relates to the dapC gene. This is not found persuasive because the separate classification of groups I, II, and II is *prima facie* evidence that the examination of these inventions would place an undue burden on the examiner. Furthermore, the searches required to examine the instantly claimed methods and the instantly claimed nucleic acids would be different, requiring a search of different classes, different electronic databases and the use of different key words in such a search. Also, the methods of invention II, while reciting a method in which the dapC gene is enhanced, do not particularly recite the dapC gene of group I. As such, the restriction requirement is still deemed proper.

The requirement is still deemed proper and is therefore made FINAL.

2. The instant claims recite the transitional language "containing." This language is treated herein as open claim language identical in scope to "comprising."

Sequence Listing

3. Applicant's CRF has been entered into the proper database. Prior to entry, the German introduction was deleted from the sequence listing.

Drawings

4. The drawings are approved for examination

Claim Rejections - 35 USC § 112

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claims 2, 4, 5, 6, 7, 18, 19, 20, and 21 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

A broad range or limitation together with a narrow range or limitation that falls within the broad range or limitation (in the same claim) is considered indefinite, since the resulting claim does not clearly set forth the metes and bounds of the patent protection desired. Note the explanation given by the Board of Patent Appeals and Interferences in *Ex parte Wu*, 10 USPQ2d 2031, 2033 (Bd. Pat. App. & Inter. 1989), as to where broad language is followed by "such as" and then narrow language. The Board stated that this can render a claim indefinite by raising a question or doubt as to whether the feature introduced by such language is (a) merely exemplary of the remainder of the claim, and therefore not required, or (b) a required feature of the claims. Note also, for example, the decisions of *Ex parte Steigewald*, 131 USPQ 74 (Bd. App. 1961); *Ex parte Hall*, 83 USPQ 38 (Bd. App. 1948); and *Ex parte Hasche*, 86 USPQ 481 (Bd. App. 1949). In the present instance, claim 2 recites the broad recitation "the polynucleotide according to claim 1", and the claim also recites "preferably recombinant DNA replicable in coryneform bacteria" which is the narrower statement of the range/limitation. It is not clear if the "preferably" portion of the claim is a limitation of the claim. Amendment of claim 2 to remove "preferably" would obviate this problem. Claims 4 and 5 are also indefinite because they depend from claim 2 but do not clarify this issue.

Claims 2, 4, and 5 are indefinite over the recitation of "replicable" because the ability of a recombinant DNA to replicate is a latent characteristic and the claims do not set forth the criteria by which to determine this capability. That is, it is not clear whether the recited probes have the potential to replicate or do in fact replicate in the bacteria. Amendment of the claim to read, for example, "which replicates" would obviate this rejection.

Regarding claim 6, the phrase "in particular" renders the claim indefinite because it is unclear whether the limitation(s) following the phrase are part of the claimed invention. See MPEP § 2173.05(d).

Claim 7 is indefinite over the recitation "the zwa1 gene" because such a designation is arbitrary. That is, it is not clear from the teachings of the specification or the recitation in the claim what encompasses a "zwa1 gene."

Claims 18-21 are indefinite over the recitation "originating from corynform bacteria" because it is not clear what it means for a DNA to have originated from a bacteria. It is not clear how many changes could have occurred from the time the sequence was isolated from the bacteria, yet still have the DNA be considered to have "originated" from the bacteria. Claims 18-21 are indefinite because the do not make clear the connection between the N-succinylamionketopimelate transaminase that is encoded by the DNA and the amino acid sequence shown in SEQ ID NO: 2 that are both recited in claim 18. Thus, the recitation "the amino acid sequence shown in SEQ ID NO: 2" lacks proper antecedent basis in the claim because it has not been previously recited. Claims 18-21 are indefinite over the recitation "the amino acid sequence shown in SEQ ID NO: 2 in position 209" in claim 18 because it is not clear how an amino acid sequence can be in a particular position since the use of the word "sequence"

implies more than one amino acid, but then the claim discusses the "sequence" that is "in position 209." Applicant should amend the claim to clarify that they are referring to a single amino acid at a particular position in the encoded N-succinylamionketopimelate transaminase. Claim 18 would be clarified by reciting "A DNA which encodes N-succinylamionketopimelate transaminase, wherein said N-succinylamionketopimelate transaminase comprises the amino acid sequence set forth as SEQ ID NO: 2, except that at position 209 of SEQ ID NO: 2 the L-proline is replaced with another amino acid" or similar language, thus overcoming these rejections.

Claim 19 is indefinite because it is not clear if the sequences referred to in parenthesis are meant to be limitations to the claim, and if so, how they are meant to limit the claim. That is, it is not clear if "the enzyme protein" IS SEQ ID NO: 2 or if it could be SEQ ID NO: 2 or some other sequence. Furthermore, the claim does not set forth how SEQ ID NO: 4 relates to the DNA that is the subject of the claim.

In claim 20, the recitation "the replacement of L-proline with L-leucine in position 209" lacks proper antecedent basis because the claim does not previously refer to such a specific replacement. The claim is further indefinite over the recitation "cytosine in position 716" because the claim does not set forth what sequence's position 716 is being referenced. The claim has not previously recited any nucleic acid sequence. Furthermore, the claim recites "as shown in SEQ ID NO: 3" but it is not clear what is being shown in SEQ ID NO: 3. That is, it is not clear if this is intended to limit the instant claim to a DNA comprising SEQ ID NO: 3, or if SEQ ID NO: 3 is merely an example of a DNA that has a cytosine at position 716. Amendment of

claim 20 to recite, for example, "A DNA according to claim 18, which comprises SEQ ID NO: 3" would simplify this claim and overcome this rejection.

Claim 21 is indefinite for all of the reasons that claims 17, 18, and 19 are indefinite, as claim 21 depends from these but fails to clarify any of the issues raised herein.

7. The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 1, 2, 3, 4, 5, 6, 7, and 15 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Claims 1-7 and 15 drawn to isolated polynucleotides that are related by 70% homology to either a polynucleotide encoding a polypeptide containing instant SEQ ID NO: 2 or which encode a polypeptide that have 70% homology to instant SEQ ID NO: 2, or to polynucleotides that contain at least 15 successive nucleotides of one of these. The specification teaches SEQ ID NO: 2, which is the polypeptide encoded by the dapC gene from Corynebacterium glutamicum. In addition, the claims encompass sequences that hybridize with SEQ ID NO: 1 and sequences with functionally neutral sense mutations from SEQ ID NO: 1. The specification teaches SEQ ID NO: 1 which is the dapC gene from Corynebacterium glutamicum encoding the enzyme N-succinylamionketopimelate transaminase. The specification also teaches that by replacing the amino acid position 209 of SEQ ID NO: 2 with a leucine, enhancement occurs and bacteria bearing the corresponding amino acid replacement produce L-lysine in an improved manner (specification, page 11). Such an amino acid sequence is represented by SEQ ID NO: 4, encoded

by SEQ ID NO: 3. Claims 1-7 and 15 encompass a large genus of polynucleotides of polynucleotides having hundreds of thousands of members. This large genus is represented in the specification by SEQ ID NO: 1 and polynucleotides encoding SEQ ID NO: 2 and by SEQ ID NO: 3 and polynucleotides encoding SEQ ID NO: 4. Thus, applicant has express possession of a limited number of species in a genus which comprises hundreds of millions of different possibilities.

With regard to the written description, all of these claims encompass nucleic acid sequences different from those disclosed in the specific SEQ ID No:s which, for claims 1-7 and 15 include modifications by permitted by the % identity language for which no written description is provided in the specification. In addition, the claims encompass nucleic acids that have only 15 nucleotides in common with a nucleic acid that has 70% homology to either a polynucleotide encoding a polypeptide containing instant SEQ ID NO: 2 or which encode a polypeptide that have 70% homology to instant SEQ ID NO: 2. These nucleic acids can have these 15 nucleotides embedded in any other nucleic acid sequence.

The specification provides examples of polynucleotides encoding two particular N-succinylamionketopimelate transaminases, but the specification does not provide any description of other N-succinylamionketopimelate transaminase from other species of bacteria or other organisms. The specification does not contain any written description of how the enzymes taught in the specification (SEQ ID NO: 2 and SEQ ID NO: 4) can be modified but still result in functional N-succinylamionketopimelate transaminases.

It is noted that in Fiers v. Sugano (25 USPQ2d, 1601), the Fed. Cir. concluded that

> "...if inventor is unable to envision detailed chemical structure of DNA sequence coding for specific protein, as well as method of obtaining it, then conception is not achieved until reduction to practice has occurred, that is, until after gene has been isolated...conception of any chemical substance, requires definition of that substance other than by its functional utility."

In the instant application, only the polynucleotides encoding the disclosed amino acid sequences are described. Also, in Vas-Cath Inc. v. Mahurkar (19 USPQ2d 1111, CAFC 1991), it was concluded that:

> "...applicant must also convey, with reasonable clarity to those skilled in art, that applicant, as of filing date sought, was in possession of invention, with invention being, for purposes of "written description" inquiry, whatever is presently claimed."

In the application at the time of filing, there is no record or description which would demonstrate conception of any polynucleotides encoding polypeptides modified by addition, insertion, deletion, substitution or inversion with the disclosed sequences encoding polypeptides possessing one or more amino acid differences from SEQ ID NO: 2 or SEQ ID NO: 4 such that a different amino acid sequence is encoded which is a functional N-succinylamionketopimelate transaminases. The specification has not demonstrated conception or possession of polynucleotides which encode polypeptides that are not N-succinylamionketopimelate transaminases.

8. Claims 1, 2, 3, 4, 5, 6, 7, 15, 18, and 21 are rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for polynucleotides encoding SEQ ID NO: 2 or SEQ ID NO: 4, does not reasonably provide enablement for (a) polynucleotides that encode polypeptides having 70% homology to SEQ ID NO: 2, (b) polynucleotides having 70% homology to a polynucleotide encoding SEQ ID NO: 2, polynucleotides comprising at least 15 successive nucleotides of (a) or (b), or polynucleotides encoding a N-succinylamionketopimelate transaminase with any other amino acids in position 209 of SEQ ID NO: 2 or SEQ ID NO: 4. The specification does not enable any person skilled in the art to which it pertains, or with which

it is most nearly connected, to make and use the invention commensurate in scope with these claims.

Claims 1-7 and 15 drawn to isolated polynucleotides that are related by 70% homology to either a polynucleotide encoding a polypeptide containing instant SEQ ID NO: 2 or which encode a polypeptide that has 70% homology to instant SEQ ID NO: 2, or to polynucleotides that contain at least 15 successive nucleotides of one of these. Within this genus, the specification teaches SEQ ID NO: 2, which is the polypeptide encoded by the dapC gene from Corynebacterium glutamicum. The specification teaches SEQ ID NO: 1 which is the dapC gene from Corynebacterium glutamicum encoding the enzyme N-succinylamionketopimelate transaminase. The specification also teaches that by replacing the amino acid position 209 of SEQ ID NO: 2 with a leucine, enhancement occurs and bacteria bearing the corresponding amino acid replacement produce L-lysine in an improved manner (specification, page 11). Such an amino acid sequence is represented by SEQ ID NO: 4, encoded by SEQ ID NO: 3.

Claims 18 and 21encompass DNA encoding N-succinylamionketopimelate transaminase in which the proline at position 209 of SEQ ID NO: 2 has been replaced with another amino acid. The specification also teaches that by replacing the amino acid position 209 of SEQ ID NO: 2 with a leucine, enhancement occurs and bacteria bearing the corresponding amino acid replacement produce L-lysine in an improved manner (specification, page 11). Such an amino acid sequence is represented by SEQ ID NO: 4, encoded by SEQ ID NO: 3. The specification is silent as to the effects of the replacement of the leucine at position 209 of SEQ ID NO: 2 with any other nucleic acid on the activity of the encoded enzyme. Thus, within the scope of claims 18 and 21, a single working example is provided.

The modification of the amino acid sequence of an enzyme is a highly unpredictable art. Enzyme function and activity is intrinsically related to the structure of the enzyme, and even single amino acid changes can alter the functionality of an enzyme. The instant specification exemplifies this point by teaching that the substitution of a single amino acid in SEQ ID NO: 2 will result in an increased activity in the enzyme. The prior art is replete with examples wherein a change in a single amino acid of an enzyme results in the loss of or decrease of activity of the enzyme. For example, Daiho et al. (The Journal of Biological Chemistry, 1999, Vol. 274, pages 23910-23915) discuss mutants that encode modified SERCA1a enzyme which result in the substantial loss of enzyme activity, the increase in some aspects of enzyme activity and change in expression levels of enzyme. Nishihara et al. teach two single amino acid changes that result in the inactivation of enzyme activity for the transferase FucT-III (Biochemical and Biophysical Research Communications, 1993, Vol. 196, No. 2, pages 624-631).

The specification provides only minimal guidance as to how instant SEQ ID NO: 2 can be modified yet still retain enzymatic activity. Namely, the specification teaches that the substitution of the proline at position 209 of SEQ ID NO: 2 with a leucine results in an enzyme with increased activity. The specification does not provide any guidance as to how to select other amino acids that may have a similar effect in this position, nor does the specification provide any guidance as to how other portions of the polynucleotide encoding instant SEQ ID NO: 2 can be modified while still maintaining the ability to encode a functional N-succinylamionketopimelate transaminase. The instantly rejected claims encompass nucleic acids that encode widely variant polypeptides considering the changes allowed within 70% homology of SEQ ID NO: 2 or within the length restrictions of claim 1.

Thus, in light of the high level of unpredictability in the art, the low level of guidance in the specification and examples as to how to modify nucleic acids encoding SEQ ID NO: 2 or SEQ ID NO: 4 yet still obtain functional enzymes, the instant claims are rejected as lacking proper enablement to make and use the claimed invention commensurate in scope with the claims.

9. Claims 6 and 7 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

This rejection applies to claims 6 and 7 when they are interpreted so as to require plasmid pXT-dapCexp. In this case, it is apparent that the DNA insert of the plasmid deposited with DSM is required to practice the claimed invention. As such, it must be readily available or obtainable by a repeatable method set forth in the specification, or otherwise known and readily available to the public. If it is not so obtainable or available, the requirements of 35 USC 112, first paragraph may be satisfied by an enabling deposit of the plasmid.

It is noted that Applicants have deposited the organism but there is not indication in the specification as to the public availability of the plasmid (see specification pages 26), thus it is considered insufficient assurance that all of the conditions of 37 CFR 1.801-1.809 have been met. If a deposit has been made under the terms of the Budapest Treaty, then an affidavit or declaration by Applicants, or a statement by an attorney of record over his or her signature and registration number, stating that the instant invention will be irrevocably and without restriction released upon issuance of a patent would satisfy the deposit requirement made herein. If a

deposit has not been made under the Budapest Treaty, then in order to certify that the deposit meets the criteria set forth in 37 CFR 1.801-1.809 and MPEP 2402-2411.05, Applicant may provide assurance of compliance by affidavit or declaration, or by a statement by an attorney of record over his or her signature and registration number showing that :

(a) during pendancy of the application, accession to the invention will be afforded to the Commissioner upon request;

(b) all restrictions upon availability to the public will be irrevocably removed upon granting of the patent;

(c) the deposit will be maintained in a public depository for a period of 30 years, or 5 years after the last request or for the enforceable life of the patent, whichever is longer;

(d) a test of the viability of the biological material at the time of deposit (see 37 CFR 1.807); and

(e) the deposit will be replaced if it should ever become inviable.

Amendment of the specification to recite the date of the deposit and the address of the depository is also required to satisfy the deposit requirement.

Claim Rejections - 35 USC § 102

10. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

11. Claims 1, 2, 3, 4, 5, 6, 7, and 15 are rejected under 35 U.S.C. 102(b) as being anticipated by Katsumata et al (US 495441).

Katsumata et al. teach a plasmid that comprises the dapC gene of Corynebacterium glutamicum (Col. 4, lines 13-16), and further teach Corynebacterium glutamicum comprising this plasmid (Col. 9). When the plasmid is expressed in the bacteria, RNA is produced. With respect to claim 6, this reference meets the limitations of claim 6 insofar as claim 6 is limited to a vector comprising a polynucleotide according to claim 1.

Katsumata et al. do not specifically teach the nucleotide sequence of the plasmid. However, Katsumata et al. do teach that this plasmid comprises a polynucleotide encoding the same enzyme from the same species of bacteria as the instantly disclosed polynucleotide. Thus, it the product taught by Katsumata et al. appears to be identical to instant SEQ ID NO: 1. Applicant is reminded that MPEP 2112.01 teaches "Where the claimed and prior art products are identical or substantially identical in structure or composition, or are produced by identical or substantially identical processes, a prima facie case of either anticipation or obviousness has been established. In re Best, 562 F.2d 1252, 1255, 195 USPQ 430, 433 (CCPA 1977). 'When the PTO shows a sound basis for believing that the products of the applicant and the prior art are the same, the applicant has the burden of showing that they are not.'" Thus this plasmid is considered to be an isolated polynucleotide that meets the limitations of claims 1, 2, 3, 5, 6, 7, and 15.

12. Claims 1, 2, 3, 5, and 15 are rejected under 35 U.S.C. 102(a) as being anticipated by Pompejus et al. (WO 01/00843).

Applicant cannot rely upon the foreign priority papers to overcome this rejection because a translation of said papers has not been made of record in accordance with 37 CFR 1.55. See MPEP § 201.15.

Pompejus et al. teach an isolated nucleic acid comprising a polynucleotide containing at least 15 successive nucleotides of the polynucleotide encoding SEQ ID NO: 2. Specifically, SEQ ID NO: 127 taught by Pompejus et al. has 100% identity with nucleotides 1-765 of instant SEQ ID NO: 1. Pompejus et al. teach Corynebacterium glutamicum comprising the polynucleotide (p. 8, line 19), and thus the sequence is replicable in coryneform bacteria. Pompejus et al. teach cDNAs, DNAs or RNAs (p. 6, line 12), as well as hybridization probes (p. 6, lines 14-15). The nucleic acid taught by Pompejus et al. would hybridize to SEQ ID NO: 1. Pompejus et al. teach vectors comprising the isolated polynucleotide (p. 8, lines 1-5). Thus, the teachings of Pompejus et al. meet the limitations of each of the rejected claims.

13. Claims 1, 2, 5, and 6 rejected under 35 U.S.C. 102(b) as being anticipated by Mahairas et al. (GenBank Accession AQ522445, GI: 4769479, May 1999).

Mahairas et al. teach an isolated polynucleotide comprising at least 15 successive nucleotides of the complement of SEQ ID NO: 1. Namely, nucleotides 96-114 of the sequence taught by Mahairas et al. are identical to the complement of nucleotides 1207-1225 of instant SEQ ID NO: 1. The polynucleotide sequence taught by Mahairas et al. is within a pBACe3.6 vector. The polynucleotide sequence taught by Mahairas et al. would hybridize to instant SEQ ID NO: 1 under some stringency conditions, albeit very low stringency.

Conclusion

14. An isolated nucleic acid encoding instant SEQ ID NO: 4 is free of the prior art.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Juliet C. Einsmann whose telephone number is (703) 306-5824. The examiner can normally be reached on Monday through Friday, from 9:00 AM until 4:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, W. Gary Jones can be reached on (703) 308-1152. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 308-4242 and (703) 305-3014.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0196.

Juliet C. Einsmann
Examiner
Art Unit 1634

September 19, 2002

W. Gary Jones
Supervisory Patent Examiner
Technology Center 1600